

CLAIMS

1. A computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state, said method comprising:
  - 5 modifying selected text segment portions from said process;
  - unmapping instrumented code space such that said instrumented code space is inaccessible to said process;
  - provided an instruction pointer resides in said instrumented code
  - 10 space, updating said instruction pointer to uninstrumented code space; and
  - executing said process and, provided said process generates a fault by seeking to access an address in instrumented code space, providing a corresponding address in said uninstrumented code space.
- 15
2. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 1 wherein said selected text segment portions are selected from the group consisting of: breakpoints, branches, switch tables, procedure lookup tables (PLTs) for said instrumented code space.
- 20
3. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 1 wherein said instrumented code space is comprised of shared memory.
- 25
4. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 1 further comprising:
  - unwinding a call stack of said process and recording return addresses of said process.
- 30
5. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 4 further comprising:
  - 35 comparing said return addresses of said process to said address in said instrumented code space which generated said fault upon execution of said process.
6. A computer-readable medium embodying instructions that

cause a computer to perform a method for reverting a process in an in-line instrumented state to an uninstrumented state, the method comprising:

- 5        modifying selected text segment portions from said process;
- unmapping instrumented code space such that said instrumented code space is inaccessible to said process;
- provided an instruction pointer resides in said instrumented code space, updating said instruction pointer to uninstrumented code space;  
and
- 10      executing said process and, provided said process generates a fault by seeking to access an address in instrumented code space, providing a corresponding address in said uninstrumented code space.

7. The computer-readable medium of Claim 6 wherein said selected  
15 text segment portions are selected from the group consisting of:  
breakpoints, branches, switch tables, procedure lookup tables (PLTs) for  
said instrumented code space.

8. The computer-readable medium of Claim 6 wherein said  
20 instrumented code space is comprised of shared memory.

9. The computer-readable medium of Claim 6 wherein said  
instructions further cause said computer to:  
      unwind a call stack of said process and record return addresses of  
25 said process.

10. The computer-readable medium of Claim 9 wherein said  
instructions further cause said computer to:  
      compare said return addresses of said process to said address in  
30 said instrumented code space which generated said fault upon execution  
of said process.

11. An apparatus for reverting a process in an in-line  
instrumented state to an uninstrumented state, the apparatus  
35 comprising:  
      means for modifying selected text segment portions from said  
process;  
      means for unmapping instrumented code space such that said  
instrumented code space is inaccessible to said process;

means for updating an instruction pointer to uninstrumented code space provided said instruction pointer resides in said instrumented code space, and

means for executing said process and, provided said process  
5 generates a fault by seeking to access an address in instrumented code space, providing a corresponding address in said uninstrumented code space.

12. The apparatus of Claim 11 wherein said selected text segment  
10 portions are selected from the group consisting of: breakpoints, branches, switch tables, procedure lookup tables (PLTs) for said instrumented code space.

13. The apparatus of Claim 11 wherein said instrumented code  
15 space is comprised of shared memory.

14. The apparatus of Claim 11 further comprising:  
means for unwinding a call stack of said process and recording  
return addresses of said process.

20 15. The apparatus of Claim 14 further comprising:  
means for comparing said return addresses of said process to said  
address in said instrumented code space which generated said fault upon  
execution of said process.